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10/022,593	12/17/2001	Opinder Kishan Bhan	TH 2184	6008

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EXAMINER

NGUYEN, CAM N

ART UNIT

PAPER NUMBER

1754

DATE MAILED: 09/16/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
10/022,593

Applicant(s)
Bhan et al.

Examiner
Cam Nguyen

Art Unit
1754



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/24/03 (an election)
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above, claim(s) 19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 6) ☐ Other:

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DETAILED ACTION

1. Applicant's election with traverse of Group I, claims 1-18, in Paper No. 5 is acknowledged. The traversal is on the ground(s) that "there will be no additional burden to the Examiner to examine both Groups of claims; because a patentability search for one Group of claims will necessarily entail a search of the same art areas as for the other Group of claims". This is not found persuasive because: (1) the elected product claims are not found allowable, (2) the search required for Group II is not required for Group I, thus, if both groups are searched, an additional burden is imposed on the Office due to two difference searches being required.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 19-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in Paper No. 5.

Claim Objections

3. Claim 8 is objected to because of the following informalities: in step (d), "done" should be changed to --conducted--.

Appropriate correction is required.

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Claim Rejections - 35 USC § 112 (Second Paragraph)

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, ln 1-2, the proper Markush terminology is --wherein the porous refractory oxide is selected from *the group consisting of* alumina, alumina-silica, silica, titania, zirconia, boria, magnesia, zeolites and combinations thereof--. See MPEP § 2173.05(h).

Claim Rejections - 35 USC § 102(b)

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-10 & 12-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Iyer et al., "hereinafter Iyer", (US Pat. 5,686,375).

Iyer discloses a catalyst composition comprising a porous refractory oxide, a molybdenum component, a phosphorus component and an underbedded nickel component (see

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col. 17, claim 1). The catalyst is prepared by first compounding the support material with one or more precursors of catalytically active nickel and then calcining at a temperature above 850°F (or above 454°C), and preferably from about 1000°F to about 1,200°F (or about 538°C to about 649°C). Secondly, the resultant calcined nickel/support composition is contacted with a precursor of a molybdenum hydrogenation metal component and, optionally, with precursors of a phosphorus component. The product composition containing the calcined nickel/support, molybdenum, and (optionally) phosphorus, is then dried and calcined from about 650°F to about 1000°F (or about 343°C to about 538°C) (see col. 6, ln 57-67). Suitable compounds for the process including nickel nitrate, nickel carbonate, molybdenum trioxide, molybdenum heptamolybdate, and phosphoric acid (see col. 7, ln 19-32). The catalyst contains about 0.5 to 15 percent, usually above 3.0 percent and normally from 4.1 to 13 percent, and preferably above 5 percent by weight of nickel, calculated as NiO, and about 1 to about 40 percent, usually from about 3 to about 35 percent, and preferably from 17 to 27 percent by weight of molybdenum, calculated as MoO₃, and about 0.5 to about 15 weight percent of phosphorus (see col. 8, ln 4-20). Suitable support materials including the claimed porous refractory supports (see col. 4, ln 33-38).

The claimed Group VIB metal, Group VIII metal, and phosphorus concentrations are met by the teaching of the reference since they fall within the disclosed amounts (see Iyer at col. 8, ln 4-20).

With respect to the limitation on "the atomic ratio of the Group VIII to the Group VIB metal being between 1.5 to 2.5" in claims 1, 8, & 12, it is considered the claims are met by the

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reference in view of the same catalytic metal concentrations disclosed by the reference and recited in the instant claims.

With respect to the process of making a catalyst, the claimed temperatures are met by the teaching of the reference since they fall within the disclosed temperature ranges (see Iyer at col. 6, ln 57-67).

Iyer discloses the claimed catalyst composition and a process of preparing a catalyst, thus anticipates the claims.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iyer et al., "hereinafter Iyer", (US Pat. 5,686,375).

Iyer discloses the claimed catalyst composition and a process of preparing a catalyst as described above, except for the following difference.

While Iyer does not specifically disclose utilizing a mixture of $\text{Ni}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$ and NiCO_3 (for the Group VIII metal compound) and a mixture of $(\text{NH}_4)_2\text{Mo}_2\text{O}_7$ and MoO_3 (for the Group

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VIB metal compound) together, it would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have done the same in the process of Iyer in order to achieve an improved catalyst composition having enhanced catalytic activity because Iyer fairly teaches in the reference that the compounds as listed above are all suitable for making his catalyst (see Iyer at col. 7, ln 19-32).

Citations

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Abdo et al. (US Pat. 5,906,731), Simpson et al. (US Pat. 4,879,265), Kukes et al. (US Pat. 4,925,546), Delaney et al. (US Pat. 5,135,902), Robinson et al. (US Pat. 4,738,944), Miller (US Pat. 4,886,594), Angmorter et al. (US Pat. 4,513,097), Hensley, Jr. et al. (US Pat. 4,460,698), Hensley, Jr. et al. (US Pat. 4,456,699), Ting et al. (US Pat. 4,455,390), Richardson (US Pat. 4,317,746), Simpson (US Pat. 4,460,707), & Simpson et al. (US Pat. 4,446,248) are cited for related art.

Conclusion

11. Claims 1-20 are originally pending in the application. Claims 1-18 are rejected. Claims 19-20 are withdrawn due to nonelected (distinct) invention. No claims are allowed.


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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Cam Nguyen, whose telephone number is (703) 305-3923. The examiner can normally be reached on M-F from 8:30 am. to 6:00 pm, with alternative Monday off.

The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 (before finals) and (703) 872-9311 (after-final).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Nguyen/cnn *cnn*
September 10, 2003


Cam Nguyen
Patent Examiner
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